

Exercise 3 : Stored Procedures

Scenario 3: Customers should be able to transfer funds between their accounts.

Question: Write a stored procedure TransferFunds that transfers a specified amount from one account to another, checking that the **source account has sufficient balance before making the transfer.**

Query & Output:

```
SQL> CREATE OR REPLACE PROCEDURE TransferFunds (  
2     p_FromAccountID IN NUMBER,  
3     p_ToAccountID   IN NUMBER,  
4     p_Amount        IN NUMBER  
5 ) AS  
6     v_FromBalance NUMBER;  
7 BEGIN  
8     SELECT Balance INTO v_FromBalance  
9     FROM accounts  
10    WHERE AccountID = p_FromAccountID;  
11  
12    IF v_FromBalance < p_Amount THEN  
13        RAISE_APPLICATION_ERROR(-20001, 'Insufficient balance in source account.');14    END IF;  
15  
16    UPDATE accounts  
17    SET Balance = Balance - p_Amount  
18    WHERE AccountID = p_FromAccountID;  
19  
20    UPDATE accounts  
21    SET Balance = Balance + p_Amount  
22    WHERE AccountID = p_ToAccountID;  
23  
24    COMMIT;  
25 END;  
26 /
```

Procedure created.

```
SQL> begin
  2  TransferFunds(1001,1003,1000);
  3  end;
  4  /
```

PL/SQL procedure successfully completed.

```
SQL> SELECT AccountID, CustomerID, AccountType, Balance
  2  FROM accounts
  3  WHERE AccountID IN (1001, 1003);
```

ACCOUNTID	CUSTOMERID	ACCOUNTTYPE	BALANCE
1001	1	Savings	4050
1003	3	Checking	11000